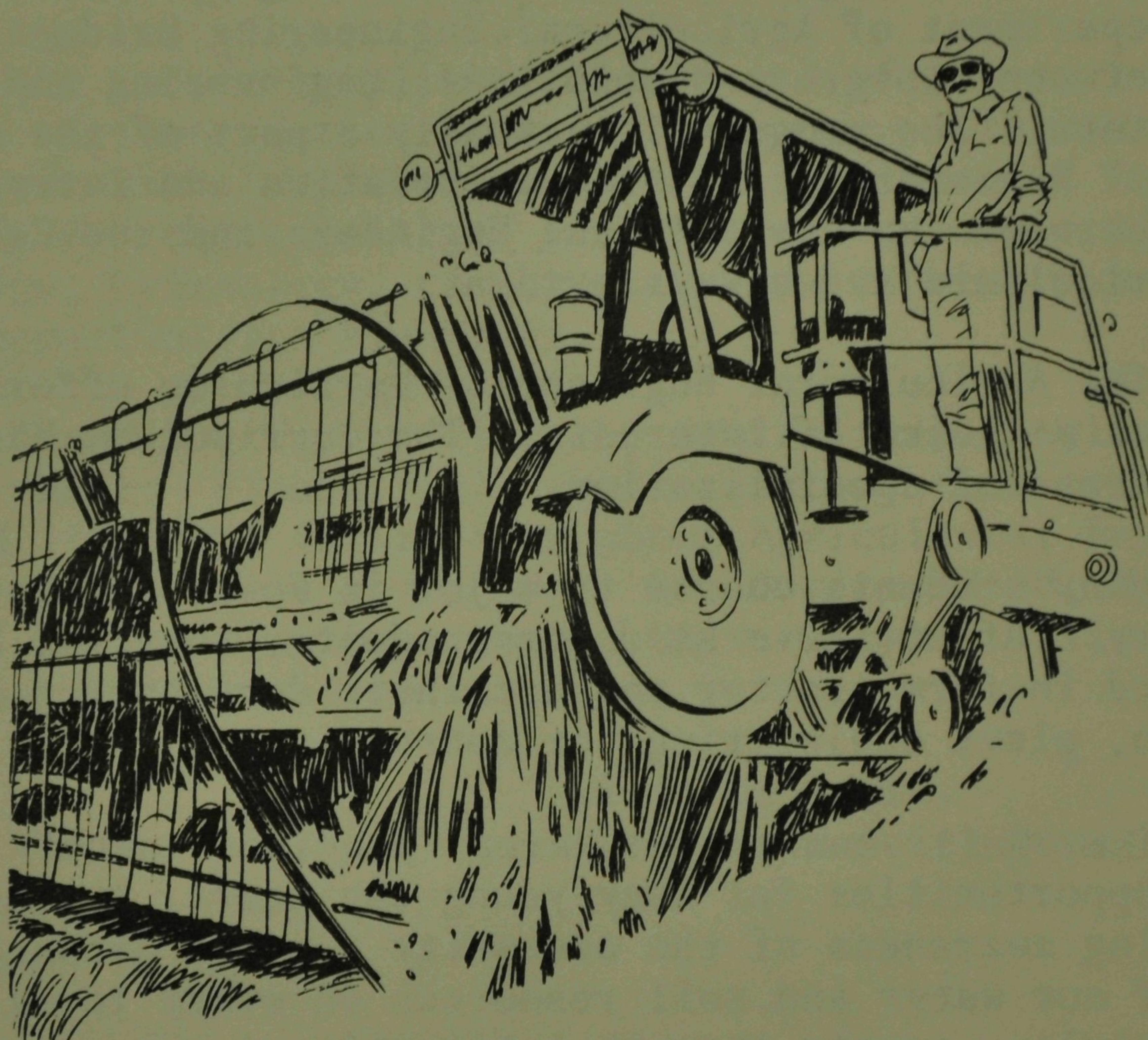




The Illinois Student Branch
of the
American Society of Agricultural
Engineers

**1981
Engineering Open House**



**BUILDING ON DREAMS
Agricultural Engineering**

College of Engineering
University of Illinois at Urbana-Champaign
Friday, March 6, 9:30 a.m. to 6 p.m.
Saturday, March 7, 9 a.m. to 4 p.m.

Agricultural Engineering
The Profession with America's Future

1981 ENGINEERING OPEN HOUSE
March 6 and 7, 1981

Welcome to Agricultural Engineering Open House. The Department of Agricultural Engineering bridges the gap between two great disciplines, engineering and agriculture. The program is actually a part of the College of Engineering, but the cooperation and interaction between the Agricultural Engineers and the College of Agriculture are always evident.

The Agricultural Engineering curriculum offers a student a choice of interests. The curriculum has four areas of specialization.

Many students choose to major in Power and Machinery. After these students graduate, they may be engaged in farm tractor and machinery development, design, plant engineering, or consulting.

The Soil and Water area provides excellent opportunities for many young engineers. An increasing awareness of the necessity for the planned use of our water and soil resources on every level of activity--county through international--has set new standards for the engineers who must cope with problems of water shortage, flood control, and optimization of agronomic production through more efficient drainage, irrigation, and erosion control practices.


The Processing graduate may be involved with any sort of problem in grain or materials handling, drying, or storage. The processing graduate has knowledge of electronics and psychrometry and may work in many areas of industry.

The Structures and Environment graduate has experience in design principles, farm buildings, strength of materials, foundation engineering, concrete design, and new innovations in waste management. The area of waste management is a very good area for a structures graduate to do his service to society and agriculture.

The interdisciplinary background of the agricultural engineer serves him well in dealing with problems, each of which involves a multiplicity of public interests. For men capable of applying new concepts of hydrology, hydraulics, construction, and machinery design, the opportunities are great.

Thank you for touring the Agricultural Engineering Department. Please feel free to ask questions. If you would like more information about Agricultural Engineering, please write to Dr. Roger R. Yoerger, Head, Agricultural Engineering Department, University of Illinois, Urbana, Illinois 61801.

Visit us again.
We enjoyed being your host.



AG. ENGR. RESEARCH LAB.

AGRICULTURAL
ENGINEERING
TOURS

ENGINEERING OPEN HOUSE PROJECTS

This year's projects fall into six categories, projects that:

1. Capture the spirit of the EOH theme for 1981
2. Demonstrate engineering's contribution to society
3. Present research in a given field (undergraduate)
4. Present research in a given field (graduate)
5. Serve demonstration purposes only
6. Represent engineering student societies

Electrical Power and Processing

- Moisture Meter Research
- Diagrams for Alcohol Fuels in Spark Ignition Engines
- Come Rain or "Moonshine" (Fuel Alcohol Production)
- Livestock Feeding and/or Identification Controls

Power and Machinery

- Machinery Selection Program
- Controlled Droplet Application of Pesticides
- Header Comparison Study
- Remote Sensing of Soil Organic Matter
- Applying Herbicides with Wick & Roller Applicators
- Current Wiring Techniques for Harsh Environments
- Micro-mini Tractor Pull
- Narrow vs. Conventional Row Widths for Soybeans

Soil and Water

- Profile Meter Measuring Losses from Soil Erosion
- Terraces for Erosion Control
- Display of Drainage Conduits from 1900 to Present
- Drainage Benefits Study

Structures and Environment

- Strengths of Systems for Setting Building Poles
- Solar Heating of Livestock Buildings
- Solar Collectors for the Farm
- Solar Applications in Agriculture
- Procedure for Evaluating Solar Collector Claims
- Anaerobic Digestion of Manure for Methane Production
- Energy Sources of the Future

Society

Nourishing Dreams

Central Exhibit

Agricultural Engineering Keeps on Growing

HIGHLIGHTS

Micro-mini tractor pull (all day both days)
Come Rain or "Moonshine" (Fuel Alcohol Production)

INDUSTRIAL EXHIBITS

Caterpillar Tractor Company
Peoria, Illinois

Soil Conservation Service
Champaign, Illinois

Allerton Implement Company
John Deere Equipment
Allerton, Illinois

Birkey's Farm Store, Inc.
Steiger Equipment
Rantoul, Illinois

Champaign County Power and Equipment
International Harvester Equipment
Urbana, Illinois

ECI Equipment Company
Allis Chalmers Equipment
Urbana, Illinois

Illini F.S.
Ag. Production Systems and Supplies
Pesotum, Illinois

Massey Ferguson, Inc.
Massey Ferguson Equipment
Urbana, Illinois

Plotner Ford Tractor, Inc.
Ford Farm Equipment
Urbana, Illinois

Shaff Implement Company
White Farm Equipment
Urbana, Illinois